What is claimed is:

1. A resin dispersion comprising solid particles of a graft modified ethylene/α-olefin random copolymer dispersed in an organic solvent, wherein the graft modified ethylene/α-olefin random copolymer has the following properties:

(a) the copolymer contains components derived from ethylene and an α-olefin of 6 to 20 carbon atoms, the content of the ethylene component is in the range of 75 to 97 % by mol, and the content of the α-olefin component is in the range of 3 to 25 % by mol, each content being based on 100 % by mol of the total of both components,

(b) the intrinsic viscosity (η) as measured in decalin at 135°C is in the range of 0.2 to 5.0 dl/g, and

(h) the copolymer contains a graft component derived from a polar monomer, and the content of the polar monomer graft component is in the range of 0.1 to 15 % by weight.

2. The resin dispersion as claimed in claim 1, wherein the graft modified ethylene/α-olefin random copolymer further has the following properties:

(c) the glass transition temperature (Tg) is not higher than -40°C,

(d) the crystallinity as measured by X-ray diffractometry is less than 30 %, and

(e) the molecular weight distribution (Mw/Mn) as measured by GPC is not more than 3.

3. The resin dispersion as claimed in claim 2, wherein the graft modified ethylene/α-olefin random copolymer further has the following properties:

(f) the B value as calculated from the following equation is in the range of 1.0 to 1.4:

$$B \text{ value} = POE/(2PO \cdot PE)$$

wherein POE, 2PO and PE are each a parameter determined from the ^{13}C-NMR spectrum, PE and PO are a molar fraction of ethylene and a molar fraction of the α-olefin, respectively, to the total number of moles of the ethylene component and the α-olefin contained in the modified ethylene/α-olefin random copolymer, and POE is a proportion of the number of ethylene/α-olefin alternating sequences to the number of all dyad sequences.

4. The resin dispersion as claimed in claim 1, wherein the dispersed solid particles of the modified ethylene/α-olefin random copolymer have particle diameters (measured by a Coulter Counter) of 5 to 50 μm.

Sub B7

5. The resin dispersion as claimed in claim 1, wherein the solid concentration of the resin dispersion is in the range of 3 to 50 % by weight.

6. The resin dispersion as claimed in claim 1, wherein the ethylene/α-olefin random copolymer has been prepared by the use of a metallocene catalyst.

Sub a3

7. A process for preparing a resin dispersion, comprising grafting a polar monomer on an unmodified ethylene/α-olefin random copolymer having the following properties:

(a') the copolymer contains components derived from ethylene and an α-olefin of 6 to 20 carbon atoms, the content of the ethylene component is in the range of 75 to 97 % by mol, and the content of the α-olefin component is in the range of 3 to 25 % by mol, each content being based on 100 % by mol of the total of both components, and

(b') the intrinsic viscosity (η) as measured in decalin at 135°C is in the range of 0.2 to 5.0 dl/g,

to prepare a graft modified ethylene/α-olefin random copolymer containing 0.1 to 15 % by weight of a graft component derived from the polar monomer, and then dispersing solid particles of the graft modified copolymer in an organic solvent.

Sub a3

8. The process for preparing a resin dispersion as claimed in claim 7, wherein the unmodified ethylene/α-olefin random copolymer further has the following properties:

(c') the glass transition temperature (Tg) is not higher than -40°C,

(d') the crystallinity as measured by X-ray diffractometry is less than 30 %, and

(e') the molecular weight distribution (Mw/Mn) as measured by GPC is not more than 3.

Sub b7

9. The process for preparing a resin dispersion as claimed in claim 8, wherein the unmodified ethylene/α-olefin random copolymer further has the following properties:

(f') the B value as calculated from the following equation is in the range of 1.0 to 1.4:

$$B \text{ value} = POE/(2PO \cdot PE)$$

wherein POE, 2PO and PE are each a parameter determined from the ^{13}C-NMR spectrum, PE and PO are a molar fraction of ethylene and a molar fraction of the α-olefin, respectively, to the total number of moles of the ethylene component and the α-olefin contained in the modified ethylene/α-olefin random copolymer, and POE is a proportion of the number of ethylene/α-olefin alternating sequences to the number of all dyad sequences.

10. The process for preparing a resin dispersion as claimed in claim 9, wherein the unmodified ethylene/α-olefin random copolymer is a linear ethylene/α-olefin random copolymer having the following properties:

(g') the ratio ($g\eta^*$ $(=(\eta)/(\eta)_{blank})$ of the intrinsic viscosity (η) measured as the property (b') to the intrinsic viscosity $(\eta)_{blank}$ of a linear ethylene/propylene copolymer having the same weight-average molecular weight (by light scattering method) as that of the unmodified ethylene/α-olefin random copolymer and having an ethylene content of 70 % by mol is a value exceeding 0.95.

11. The process for preparing a resin dispersion as claimed in claim 4, wherein the resin dispersion of claim 1 is prepared.

12. A process for producing a resin-coated metal plate, comprising applying the resin dispersion of claim 1 to a metal plate to form a coating film.

13. The process for producing a resin-coated metal plate as claimed in claim 12, wherein a finish coating is applied to the coating film to form a finish layer.

14. A process for producing a laminate, comprising applying the resin dispersion of claim 1 to a metal plate to form an adhesive layer and laminating a polyolefin sheet or film on the metal plate by means of the adhesive layer.